

II. SPECIFICATION AMENDMENTS

In the drawing, please replace figures 1a, 4a, 4b, and 4c with the attached replacement figures. In addition please add new figure 4d according to the attached.

Please replace the paragraph beginning on page 5, lines 1-3

Figures 4a, 4b, and 4c and 4d are schematic illustrations of a traditional lens system, showing the various relative positions of the lenses.

Please replace the paragraph beginning on page 5, lines 8-25 with the following:

A typical optical lens system 1 for a camera having autofocus and zoom capability is depicted schematically in figures 4a - 4e4d. It generally will consists of a primary lens 2, a variator lens 3, and a compensator lens 4 which are operatively associated to project a focused image on image plane 5. As shown, the lens has three "principal" positions, i.e., wide angle, middle and telephoto. The zoom function, as shown in figure 4d, can be a smooth movement between the two end positions (wide and tele), as indicated by arrow 30, and do not necessary have to be a stepwise action with only three options. These variations in function are provided by moving the variator and compensator lens, 3 and 4 respectively, as shown. Lens system 1 is used in a digital camera 6, as shown in figure 1, in which the lens system 1 is secured within a housing (not shown) to project an image on an image sensor 7 positioned at the image plane 5 of the camera 6. The assembly of lens are adjusted, as shown in figures 4a - 4e4d to obtain autofocus and zoom functions.

Please replace the paragraph beginning on page 6, line 11 to page 7, line 7 with the following paragraph:

The actuating assembly 10 of the digital camera is shown in more detail in figure 2. In the actuating assembly 10, an image sensor 13 is constructed with its associated electronics on a semi-conductor chip 14. Terminal 15 provides the sensor 13 with appropriate electrical contact to power the sensor 13. A micro-electrical mechanical system (MEMS) 16 is formed on substrate 17 to support the sensor 13. MEMS 16 may take many different forms depending on the function of the camera and the fabricating technique used. For the purpose of illustration, a series of electrostatic resonators 18 are schematically shown. Electrostatic resonator 18 is an example of a linear actuator which can be used as a precise positioner, among other things. Actuator 18 consists of a pair of bases 19 which are fixed to the substrate 17 and moveable supports 20. Supports 20 are connected to bases 19 by means of electrostatic fingers 21. Sensor chip 13 is connected to movable supports 20 by a further pair of electrostatic fingers 22. The moveable supports 20 and the sensor chip 13 can be moved by applying a voltage between the moveable structure and its immediately adjacent supporting structure. For this purpose contacts 23 are provided on moveable support 20 and contacts 24 are provided on bases 19. The actuating assembly 10, as shown in figure 2, provides a two position motion utilizing the movement of moveable supports 20 on their associated bases 19 and the movement of the sensor 13 on supports 20. ~~For further information, see the article entitled "What is MEMS" at <http://www.mems.engr.wisc.edu>. Further information with respect to MEMS is available from several sources, in particular, the MEMS and Nanotechnology Exchange,~~

1895 Preston White Drive, Suite 100, Reston, Virginia, 20191 and
the University of Wisconsin Engineering Department.